

## **16 CUMULATIVE IMPACT ANALYSIS**

In this chapter, potential cumulative impacts associated with the proposed mine expansion project are presented for each environmental issue (e.g., land use/agriculture, visual resources) evaluated within the project-specific environmental analyses (Chapters 4–15).

### **16.1 CUMULATIVE SETTING**

#### **INTRODUCTION**

Cumulative impacts are defined in State CEQA Guidelines §15355(b) as:

the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

State CEQA Guidelines §15064(h)(1) provides guidance for evaluating cumulative impacts:

An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

State CEQA Guidelines §15130(b)(1) provides that a discussion of cumulative impacts requires "either a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency" or "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact." Although only one of the two methods of analysis are required by the State CEQA Guidelines, the cumulative impact analysis in this EIR will focus on specific current and probable future projects as well as Placer County General Plan projections for the SR 65 corridor.

#### **PROJECTS CONSIDERED IN THE CUMULATIVE IMPACT ANALYSIS**

For the purposes of the cumulative impact analysis, this EIR focuses on the cumulative impacts of three types of projects:

- ▶ other sand and gravel operations that provide sand and gravel products to construction sites in Placer County and southern Yuba County;
- ▶ Caltrans' SR 65 Lincoln Bypass project, a regionwide transportation project; and

- ▶ other projects in Placer County or southern Yuba County that could potentially contribute to a cumulatively significant effect on the environment.

The locations of these current and proposed projects are shown in Exhibit 16-1.

## **SAND AND GRAVEL MINING OPERATIONS**

The current and probable future sand and gravel operations included in this chapter are the Teichert Aggregate Placer County aggregate facility located approximately 3 miles south of the Patterson mine site in Placer County; the Teichert Hammonton-Smartville Road aggregate facility in the Yuba Goldfields, located approximately 20 miles north of the Patterson mine site; the Baldwin Contracting Company aggregate facility, located west of the Yuba Goldfields; and the Western Aggregates facility, located in the Yuba Goldfields.

### **Teichert Aggregate Facility, Placer County**

In February 2003, Teichert Aggregate was granted final approval to mine and produce sand, gravel, and granite from approximately 1,000 acres of a 3,245-acre property in Placer County, approximately 4 miles north of Lincoln and approximately 2 miles south of Sheridan. The mining and processing of sand and gravel deposits will occur over a period of approximately 35–40 years, and hard rock granite mining will continue for an additional 85 years using varying rates in response to specific market conditions (Placer County Planning Department 2001).

### **Yuba Goldfields**

The Yuba Goldfields, an approximately 4-square-mile area, is located north of the Yuba River in the Hallwood area of east-central Yuba County. Extraction of gold deposits within the Yuba Goldfields and surrounding areas began with small- and large-scale placer operations, including hydraulic mining and dredging activities. Historic mining operations resulted in extensive damage to the area, including severe flood damage to the cities of Marysville and Yuba City, located downstream of the Yuba Goldfields area (Mount 1995). This area was dredged almost continuously from 1903 to 1968 and was one of the principal sources of gold in California during this time. The Yuba Consolidated Gold Fields Company operated several large-scale gold dredging operations in this area (Research Associates 1993).

Yuba County recognized the Yuba Goldfields as an area currently providing mineral and aggregate resources (Yuba County 1996). The Yuba Goldfields area is designated and zoned “Extractive Industrial” under the Yuba County General Plan, which allows surface mining as a permitted use. The location of the Yuba Goldfields, shown in Exhibit 16-1, is approximately 20 miles north of the Patterson mine site. Operators within and adjacent to the Yuba Goldfields currently supply construction materials, including asphaltic concrete, to projects within southern Placer and Yuba counties.

## Exhibit 16-1

## **Teichert Hammonton-Smartville Road**

The Teichert Hammonton-Smartville Road operation mines and processes sand and gravel deposits in addition to hard rock, approximately 1 mile south of the Yuba River on the north side of Hammonton-Smartville Road in east-central Yuba County. The mine operates on an approximately 590-acre site and mines to depths of approximately 200 feet. Mining operations use a dragline to excavate mined materials in saturated conditions (below groundwater levels). Production is 500,000 tons per year to 1 mty, depending on specific market demands. For assessing cumulative impacts, it is assumed that this facility would be operating at its maximum estimated production rate of 1 mty.

## **Baldwin Contracting Company Aggregate Facility**

Baldwin Contracting Company has proposed to expand its aggregate mining operations in the Hallwood area of east-central Yuba County, just west of the Yuba Goldfields off SR 20. Baldwin Contracting currently conducts mining operations on 200 acres and is planning a phased expansion of 197.76 acres over a period of 14–20 years, with expansion occurring 30 acres at a time. The expansion would result in mining of an additional 500,000 tons per year to 1 mty. An application was submitted to Yuba County for a change of zone, a General Plan amendment, and a Yuba County surface mining permit, and to the State Office of Mines and Geology for a SMARA amendment. Preparation of an EIR is in process.

## **Western Aggregates**

The Western Aggregates facility mines and processes sand and gravel deposits within the Yuba Goldfields south of the Yuba River and north of Hammonton-Smartville Road. The mine operates on approximately 2,000-acres, excavating sand and gravel deposits from previous gold dredger tailings. Mined aggregate material is hauled to an onsite processing plant, that includes crushers, screeners, and a conveyor. The mitigated negative declaration for the mine (adopted March 23, 1977) estimated the mining rate to be about 600,000 tons per year.

## **SR 65 LINCOLN BYPASS PROJECT**

Growth projections provided in the Placer County General Plan for the SR 65 corridor were calculated based on a review of traffic volumes from 1980 to 1998. Daily traffic volumes on SR 65 north of Riosa Road have grown by an average of approximately 4.7 percent per year. South of Riosa Road, daily traffic volumes grew an average of 3.3 percent. These numbers are slightly increased to 5.4 percent and 3.6 percent, respectively, for the period 1987–1997. Growth projections for the period 1998–2020 are estimated to be approximately 4.0 percent for the purposes of the cumulative impact analysis (Placer County 1994).

SR 65 connects Roseville and Rocklin to the Marysville/Yuba City area. The route is being traveled in increasing numbers by commuters, visitors, and commercial and agricultural users. In particular, safety concerns focus on SR 65 through Lincoln, where the collision rate is higher than the collision rate for similar types of highways because of the congestion through the downtown area during peak travel hours. Caltrans estimated in the draft EIR/environmental impact statement (EIS) for the SR 65

Lincoln Bypass Project (Caltrans 2002) that traffic on SR 65 between Lincoln and Sheridan would exceed available capacity by 2005. To address this shortfall, Caltrans has proposed to reroute approximately 12.8 miles of SR 65 from the Bear River north of Sheridan to Industrial Avenue south of Lincoln. Ultimately, Caltrans would widen the entire route to four lanes. A park-and-ride facility that could accommodate 120 cars would also be constructed adjacent to the Industrial Avenue/SR 65 intersection. This facility could be expanded later to accommodate more than 1,000 cars (Caltrans 2002). The Placer County Transportation Planning Agency, which determines which projects will be funded with the county's portion of State Transportation Improvement Program funding, has selected the Lincoln Bypass as the top priority project in the county (PCTPA 2004). Preliminary engineering and environmental studies have been completed for the project; the draft EIR/EIS was circulated for public review and comments from November 2001 through January 2002 (Caltrans 2003), and Caltrans is in the process of securing project approval (Caltrans 2004e). The traffic analysis for the Patterson Sand and Gravel facility assumes that the SR 65 Lincoln Bypass would be in place by 2020.

## **OTHER PROJECTS IN THE REGION**

Several other existing or proposed projects are included in the cumulative impact analysis. These projects, located both in Placer County and southern Yuba County, are listed below.

### **Projects in Placer County:**

- ▶ B. D. Bowling Associates polymer manufacturing operation and commercial steel fabrication plant in Sheridan
- ▶ Lakeview Farms Hunt Club in Lincoln, and
- ▶ Reggie's Gas Station in Sheridan.

### **Projects in southern Yuba County:**

- ▶ development in the Plumas Lake and East Linda Specific Plan areas,
- ▶ the proposed Dana and Dana project (expansion of the Plumas Lake Specific Plan area),
- ▶ the proposed Feather-Bear Rivers Levee Setback Project,
- ▶ potential development in the Yuba Highlands Specific Plan area,
- ▶ potential development of the Wilson Ranch project, and
- ▶ the proposed Heritage Oaks Estates and Jones Ranch projects.

## **Placer County Projects**

### **B. D. Bowling Associates Polymer Manufacturing Operation, Sheridan**

On February 11, 2004, B. D. Bowling Associates was granted approval by the Placer County Planning Commission for permanent operation of an existing polymer manufacturing plant in conjunction with an existing commercial steel fabrication plant in Sheridan, approximately 3 miles south of the Patterson Sand and Gravel mine. B. D. Bowling had been operating under a temporary use permit previously granted by the Planning Commission. The property consists of 3.6 acres and is currently zoned IN-AG-

DC (Industrial, Combined Agricultural and Combined Design Scenic Corridor). The plant manufactures electrical utility boxes using a process that involves casting a mixture of sand and resin polymer and pouring it into a mold. The facility operated from 1996 through 2001 inside an existing building at the site without the required CUP. The steel fabrication plant, in operation since the 1980s, had been an allowed use at the site without the need for a CUP.

### **Lakeview Farms Hunt Club, Lincoln**

On December 16, 2003, Lakeview Farms was granted approval by the Placer County Board of Supervisors to construct new facilities at the site of an existing hunt club on 1,000 acres at the Coon Creek Preserve. The hunt club has operated since 1996 and has been implementing a three-phase restoration program in cooperation with the Wildlife Conservation Board, NRCS, CDFG, and the California Waterfowl Association. In Phase I, these groups restored 500 acres of riparian habitat along the Coon Creek corridor and historical wetland and upland habitats that had been lost to overgrazing or converted to agricultural uses. In Phase II, an additional 500 contiguous acres of farmland was restored to upland and waterfowl habitat and additional riparian restoration was conducted in the Coon Creek corridor. The recently approved Phase III involves the relocation of a private residence and construction of a clubhouse, a barn, and bird-growing and bird-cleaning facilities on 80 acres of the site, with the remaining 920 acres committed through deeded easements to upland game and waterfowl habitat.

The hunt club will continue to accommodate 450 members and will operate 7 days a week, with special events (e.g., hunter safety courses, fundraising events, competitive events) being held 1–4 days per week. Parking is now available for 150 vehicles and five recreational vehicles (RVs), with 20 additional spaces for vehicles and 15 additional RV spaces proposed. Operations will continue at current levels.

### **Reggie's Gas Station, Sheridan**

In May 2004 Placer County approved a minor use permit (MUP) for Reggie's Gas Station/Mini Mart/Delicatessen located on Riosa Road near SR 65 in Sheridan. The MUP authorizes installation of a three-pump gas station and a 2,000-square-foot mini-mart with a delicatessen.

## **Southern Yuba County Projects**

### **Development in the Plumas Lake and East Linda Specific Plan Areas**

The Plumas Lake Specific Plan, approved in 1993, identifies an area for development in south Yuba County along SR 70 north to McGowan Parkway south of Olivehurst. The plan, which encompasses 5,263 acres, includes low-, medium-, and high-density residential development (11,824 dwelling units [du]); shopping centers; business parks; and medical centers. Development began in 2002, with full buildout anticipated in approximately 20 years (Three Rivers Levee Improvement Authority 2004). The first builder, Beazer Homes, has experienced three times the sales rate in Plumas Lake as in other subdivisions in the Sacramento region (Fleming, pers. comm., 2004). As of July 2004, 16 subdivision tract maps, representing 8,267 residential lots, had been approved or were being considered for approval by Yuba County (Yuba County Community Development and Public Works 2004, cited in Three

Rivers Levee Improvement Authority 2004). Buildout of Plumas Lake will effectively increase the population of Yuba County by 50 percent (Fleming, pers. comm., 2004).

Development of the East Linda Specific Plan, to the north of the Plumas Lake Specific Plan and across SR 70, is also proceeding. This area covers 1,760 acres, with approximately 6,000 new homes expected at buildout. As of July 2004, eight subdivision tract maps, representing 2,482 residential lots, had been approved or were being considered for approval by Yuba County (Yuba County Community Development and Public Works 2004, cited in Three Rivers Levee Improvement Authority 2004).

### **Proposed Dana and Dana Project**

In July 2003 an application was filed with Yuba County for an expansion of the south end of the Plumas Lake Specific Plan area. The Dana and Dana Project would involve a General Plan amendment and amendment of the Plumas Lake Specific Plan to allow addition of approximately 500 acres of land to the Specific Plan area. Processing of one or more tentative tract maps is anticipated, and preparation of an EIR by Yuba County is pending.

### **Potential Development in the Yuba Highlands Specific Plan Area**

The Yuba Highlands Specific Plan area is part of the Yuba Highlands Community Plan, which was approved by the Yuba County Board of Supervisors as part of the 1993 Yuba County General Plan. In September 2002 Yuba County issued the Draft Yuba Highlands Specific Plan, which could include development of a maximum of 5,101 du on 2,894 acres northeast of Beale Air Force Base. Development in the Yuba Highlands area would include a mix of land uses, including residential development at various densities, commercial development, industrial development, and open space. (Yuba Foothills Associates 2002.)

The specific plan is being evaluated in an EIR, and the project is undergoing Yuba County review (Yuba County Community Development and Public Works 2004, cited in Three Rivers Levee Improvement Authority 2004).

### **Proposed Feather-Bear Rivers Levee Setback Project**

This project is a continuation of the Yuba-Feather Supplemental Flood Control Project, for which an EIR was certified in March 2004. It would entail either setting back a portion of the north levee of the lower Bear River between the Feather River confluence and a location just downstream of SR 70 (the preferred option), or setting back both this levee segment and a portion of the east levee of the lower Feather River between the confluence and Star Bend. The setback levee for the preferred option would be approximately 2 miles long. Land in the expanded floodway area would be converted to natural habitats, and an orchard would be removed from the Bear River floodway. The project would address levee deficiencies, lower upstream flood elevations, and enhance fish and wildlife habitat. An EIR has been prepared for this project by the Three Rivers Levee Improvement Authority (a joint powers authority created by Yuba County and Reclamation District 784 to manage the overall implementation

of levee improvement projects on the Yuba, Feather, and Bear Rivers). Certification of the EIR is expected in November 2004.

### **Potential Development of the Wilson Ranch Project**

The Wilson Ranch project would involve a residential development on the south side of Spenceville Road, west of Camp Far West Road, in the easternmost part of the sphere of influence of the City of Wheatland. This project is currently in the preapplication phase, including determination of the lead agency. If approved, the Wilson Ranch project would include up to 1,600 du on 1,500 acres.

### **Proposed Heritage Oaks Estates and Jones Ranch Projects**

Applications have been submitted to the City of Wheatland for both of these proposed projects, which currently involve annexation, General Plan amendments, and rezoning with an ultimate intended use of medium density (4–6 du/acre) residential development. No tentative maps have yet been produced for these projects pending the proposed annexation. Heritage Oaks Estates would involve 234 acres west of SR 65 between Main Street in Wheatland and the Bear River, while Jones Ranch would involve 194 acres on the south side of Wheatland Road.

## **16.2 CUMULATIVE IMPACTS**

Impact  
16-1

**Cumulative Conversion of State-Designated Farmland.** *The proposed project would compensate for the loss of agricultural land converted for aggregate mining by reclaiming 155 acres of mined land and 99 acres of offsite areas to farmland. The proposed agricultural reclamation, however, would not compensate for the conversion of state-designated Farmland to other agricultural land. The proposed project, therefore, would contribute to the conversion of state-designated Farmland in the project vicinity. The proposed project's contribution of 254 acres would be considerable. This cumulative impact is considered significant.*

The proposed project would convert approximately 254 acres of state-designated Important Farmland by successively removing the Farmland from production for up to 20 years per phase. The proposed project would compensate for the loss of agricultural land converted for aggregate mining by reclaiming 155 acres of mined land and 99 acres of offsite areas to farmland (Impact 4-1). The proposed agricultural reclamation, however, would not compensate for the conversion of state-designated Farmland to other agricultural land. The proposed project, therefore, would contribute to the conversion of state-designated farmland in the project vicinity. In Placer County between 1992 and 2000, approximately 1,420 acres of state-designated Farmland was converted to nonagricultural uses and approximately 280 acres of state-designated Farmland was converted to grazing land. In Yuba County between 1992 and 2000, approximately 2,040 acres of state-designated Farmland was converted to nonagricultural uses and approximately 5,447 acres of state-designated Farmland was converted to grazing land (California Department of Conservation 2002). The project's contribution of 254 acres would be considerable. This cumulative impact is considered significant.

Impact  
16-2

**Cumulative Long-Term Degradation of Views.** *The Teichert Aggregate facility and the SR 65 Lincoln Bypass project could intrude on residents in this rural area. However, visual*



*impacts of expanded mining operations under the proposed project are site specific and would be mitigated on a project basis with installation of a landscape buffer, and no cumulative projects are close enough to contribute to a significant cumulative impact. Therefore, this cumulative impact is considered **less than significant**.*

As described in Chapter 5, Visual Resources, the development of the proposed mine expansion project would result in a less-than-significant short-term impact (Impact 5-1) on visual resources at the Patterson mine site during site preparation for the asphalt batch plant. The asphalt batch plant would be placed on a currently disturbed portion of the existing operation and would be virtually indistinguishable from ongoing mining and processing activities.

Phase 6 of the expanded mining operations would adversely affect views from neighboring properties in the long term (Impact 5-2). This visual impact is site specific and would be mitigated on a project basis with installation of a landscape buffer. No cumulative projects are close enough to contribute to a significant cumulative impact.

Nighttime construction and operation of the asphalt batch plant would introduce a new source of lighting to the project area (Impact 5-3). Lighting features for the proposed would be required to meet Placer County Design Guidelines, reducing the potential for glare and skyglow and reducing the project's contribution to potential cumulative lighting impacts to a less-than-significant level. As a result, this cumulative impact is considered less than significant.

Impact  
16-3

**Cumulative Increase in Long-Term Demand for Fire Protection and Emergency Response Services.** *The proposed project and cumulative projects would increase the long-term demand for fire protection and emergency response services in the region. Each project would take part in the Fire Facilities Mitigation Fee program or a similar process imposed by Placer County, Yuba County, or CDF. This cumulative impact is considered **less than significant**.*

The proposed mine expansion project would result in less-than-significant impacts on police protection, water and sewer, and solid waste disposal (as discussed in Chapter 1, Introduction). Project implementation would result in less-than-significant impacts on response times for fire and emergency services (Impact 6-1), because mining and processing would proceed at rates and with methods similar to those of the existing operation. Initial response for incidents at the Patterson mine site comes from the existing CDF station in Lincoln. Although current response times are longer than the Placer County General Plan's recommended standard of 10 minutes to rural areas of the county, the proposed mine expansion project would not substantially increase response times over current response times. Operations under the Lakeview Farms Hunt Club, the B. D. Bowling Associates plant, and Reggie's Gas Station are not expected to substantially increase the need for fire protection and emergency services in the area. The existing aggregate operations in the Yuba Goldfields, and the proposed expansion of Baldwin Contracting Company operations, are located outside the jurisdiction of the Lincoln fire station. Development in the Plumas Lake and East Linda Specific Plan areas, and the proposed Dana and Dana, Wilson Ranch, Heritage Oaks Estates, and Jones Ranch projects, are also outside the jurisdiction of Placer County service agencies. The Yuba Goldfields operations have already secured the required public services during their original permit processes. Because each cumulative project

addresses fire protection and emergency service as a site-specific issue, no cumulative impact would result.

The proposed mine expansion project would result in a less-than-significant impact on long-term fire protection and emergency response services (Impact 6-2). Because the proposed AAPR at the Patterson mine site would be reduced from existing rates, the overall number of mine-related truck trips on local roadways would not increase. Therefore, accidents involving mine-related trucks are not expected to increase. The proposed project would be subject to a Fire Facilities Mitigation Fee from Placer County that would also be imposed on future development in the project area. The Teichert Aggregate Placer County facility and other approved and proposed development would mitigate impacts on long-term fire protection and emergency response through the Fire Facilities Mitigation Fee program or another similar process in consultation with Placer County and CDF. Therefore, this cumulative impact is considered less than significant.

Impact  
16-4

**Cumulative Changes in Roadway Levels of Service and Number of Truck Trips.** *Some of the cumulative projects would contribute increased traffic to area roadways, particularly SR 65 and intersections in Sheridan. The proposed Lincoln Bypass and widening of SR 65 would improve LOS in the region by increasing roadway capacity. In addition, the proposed project would reduce truck trips along the existing haul route by reducing the average annual amount of material hauled. This cumulative impact is considered **less than significant**.*

As discussed in Chapter 7, Traffic, of the EIR, the proposed mine expansion project would result in less-than-significant traffic impacts on LOS in Sheridan and Lincoln. The proposed project would reduce the average annual number of truck trips generated by the project by reducing the AAPR. In the long term, traffic conditions in Sheridan would improve because of Caltrans' proposed SR 65 Lincoln Bypass project (Impacts 7-1 and 7-3). Cumulative projects would contribute traffic on SR 65, but the proposed expansion would improve LOS over existing conditions. This cumulative impact is considered less than significant.

Impact  
16-5

**Cumulative Air Quality Impacts.** *The proposed project and cumulative projects could combine to increase emission levels of ozone precursors and particulate matter, thereby exacerbating the existing exceedances of state and federal ambient air quality standards for ozone precursors and state standards for particulate matter. This cumulative impact is considered **significant**.*

As discussed in Chapter 8, Air Quality, of the EIR, the proposed mine expansion project would result in less-than-significant air quality impacts with regard to localized concentrations of CO emissions (Impact 8-3). Western Placer and Yuba counties are in compliance with ambient CO standards. As a result, localized concentrations would not contribute to a cumulative impact.

The proposed mine expansion project would cause increases in regional criteria pollutants and precursors (ROG, NO<sub>x</sub>, and PM<sub>10</sub>) during construction and operation of the project (Impacts 8-1 and 8-2). Short-term emissions would result from construction activities, demolition of existing facilities, construction employee trips to and from the site, and operation of heavy machinery during grading.

Long-term increases in emissions would be primarily attributable to the operation of the asphalt batch plant. Mitigation has been incorporated into the project by the applicant to address these impacts; however, they would remain significant and unavoidable. These are regional impacts, and could combine with impacts of related projects to produce a significant unavoidable cumulative impact.

Although the proposed project would result in annual reductions in localized PM<sub>10</sub> concentrations in comparison to existing operations, predicted localized PM<sub>10</sub> concentrations, as well as predicted NO<sub>x</sub> concentrations could exceed the federal and state 24-hour ambient air quality standards at some nearby residences (Impact 8-5). The accumulation of dust on the leaves of nearby agricultural plants and orchards could result in crop yields associated with decreased rates of plant photosynthesis and could affect the health of nearby sensitive plant species (Impact 8-6). Mitigation incorporated into the project would reduce the severity of these impacts, but the project's contribution, on a cumulative basis, would remain significant.

According to air dispersion modeling conducted for the proposed mine expansion project, airborne concentrations of diesel exhaust particulate matter generated by onsite vehicles and stationary equipment (Impact 8-7) and by offsite aggregate and asphaltic concrete haul trucks (Impact 8-8) would result in increased cancer risk to nearby sensitive receptors at levels that would exceed applicable standards. Project-specific mitigation measures, including the use of electrical conveyor belts and emulsified fuels, would reduce cancer risks from onsite sources (Impact 8-7) to a less than significant level. This impact, therefore, would not be expected to contribute to a cumulative impact when combined with related projects. Because the project would not increase the number of on-highway haul trucks that currently pass through Sheridan, the project would not contribute to a significant cumulative impact related to increased cancer risk to nearby sensitive receptors.

Health hazards may also result from future mining in the expansion areas that create emissions of crystalline silica. This would be a potentially significant impact (Impact 8-11). Mitigation measures would reduce the project-specific impact to a less than significant level. Because this less than significant impact is also a localized impact and because there are no other related projects in the immediate project area that would contribute to these concentrations, on a cumulative basis, it is not expected to contribute to a significant cumulative impact.

Increases in detectable odors may result from operation of the asphalt batch plant, diesel-powered equipment, and haul trucks (Impact 8-10). In particular, the eastern portion of Phase 1 and Phase 6 of the proposed project would bring new mining and reclamation activities closer to offsite sensitive receptors, resulting in a significant impact. Recommended mitigation measures would reduce odors, but not to a less than significant level. Diesel exhaust emissions from mining equipment could contribute, on a cumulative basis, to detectable increases in localized diesel-exhaust emissions, particularly at residences located in close proximity to site access roads.

The proposed mine expansion project, in conjunction with other cumulative projects described herein, would contribute to and exacerbate current non-compliance with state and federal ambient air quality standards within the Sacramento Valley Air Basin. Project-generated emissions, together with emissions from existing and reasonably foreseeable future development, would cumulatively contribute to existing

and projected exceedances of state and federal ambient air quality standards for ozone (O<sub>3</sub>) and ozone precursors and state standards for particulate matter (PM<sub>10</sub>) in western Placer and Yuba counties. This cumulative impact is considered significant.

Impact  
16-6

**Cumulative Noise Impacts.** *Operational noise levels generated by onsite mining activities could contribute considerably to cumulative noise levels at residences located near the plant that exceed Placer County noise standards. This cumulative impact is considered **significant**.*

Chapter 9, Noise, states that noise resulting from construction for the proposed mine expansion project would exceed the permissible noise standards because construction activities would not be limited to 7 a.m. to 7 p.m. as required in the standards, resulting in a potentially significant impact (Impact 9-1). Recommended mitigation measures would restrict the hours of construction, reducing this project-specific impact to a less-than-significant level. Operational mining at the proposed phases, especially at Phase 6, would increase and would exceed the Placer County 60 dBA L<sub>dn</sub> noise standard at some nearby residences, resulting in a significant impact (Impact 9-2). Noise generated during the mining of these nearest phases would contribute, on a cumulative basis, to noise levels at some nearby residences that already experience noise levels in excess of Placer County standards, because of truck traffic on site access roads. As a result, noise generated by mining activities would be considered, on a cumulative basis, to be significant.

On a cumulative basis, traffic volumes would increase in the project vicinity as a result of cumulative development, particularly considering the approximately 4 percent annual growth rate assumed for the SR 65 corridor. As presented in Chapter 9, Noise, predicted traffic noise levels at receptors located along various portions of the haul route alignment would continue to exceed the Placer County recommended noise standard of 60 dBA CNEL/L<sub>dn</sub>, particularly at residences located within the town of Sheridan. As discussed in Chapter 7, Traffic, and Chapter 9, Noise, however, the proposed project would result in a decrease in annual average daily haul truck trips, in comparison to baseline conditions. Therefore, because the project would not increase truck traffic within Sheridan compared to baseline conditions, the project would not contribute to this significant cumulative noise impact.

Operational noise levels generated by onsite mining activities could contribute, on a cumulative basis, to noise levels at residences located near the plant that could exceed the County's noise standards. Consequently, cumulative onsite operational noise impacts, including noise from mining and processing activities, are considered significant.

Impact  
16-7

**Cumulative Increase in Erosion of Banks, Levees, and Embankments and in Sedimentation.** *The proposed project and cumulative projects could combine to cause increased sedimentation along the Bear River/Feather River system. In this case, the resulting water quality degradation could affect surface water quality and habitat for fish and aquatic species downstream. This cumulative impact is considered **significant**.*

The proposed mine expansion project would result in potentially significant impacts related to instability of fill material (Impact 10-2) and cut slopes (Impact 10-4). These impacts are site specific and would

be mitigated to a less-than-significant level. Because of the physical separation of the cumulative projects, no cumulative impact would occur with regard to instability.

Impacts 10-1 (erosion of reclaimed slopes), and 10-3 (potential pit capture from separator/levee erosion and instability) are potentially significant impacts relating to possible increased erosion and sedimentation in the Bear River, which drains into the Feather River. If increased erosion and sedimentation were to occur from cumulative projects in the Yuba Goldfields and/or from the Feather-Bear River levee setback project, this could result in a cumulative impact on water quality in the Bear River/Feather River system. The project applicant has proposed BMPs identified in the mine reclamation plan to control soil erosion during construction of fill slopes (Mitigation Measure P10-1); this measure alone, however, would not reduce the potential for sedimentation to a less-than-significant level. Cumulative impacts related to soil erosion and sedimentation are considered significant.

Impact  
16-8

*Cumulative Lowering of Reclaimed Lake Levels and Degradation of Water Quality. The proposed project and certain cumulative projects could combine to degrade water quality by means of sedimentation during asphalt batch plant construction and levee construction and repair, and could adversely affect the ability of groundwater to recharge the reclaimed lake. Therefore, this cumulative impact is considered **potentially significant**.*

As discussed in Chapter 11, Water Resources, the proposed mine expansion project could result in onsite flooding during a severe storm event (Impact 11-1). Onsite flooding would be a localized effect, however, and proposed project and cumulative projects would not combine to result in a cumulative impact related to this concern.

As discussed in Impact 11-2, the proposed project would increase stormwater runoff volumes, however, the runoff storage capacity of created ponds would offset the runoff volume increases, resulting in a net decrease in runoff volumes from the site. The proposed project, therefore, would not contribute to any cumulative impacts related to stormwater runoff volumes.

Excavation of the mining pit in Phase 6 (proposed to occur during a 2-year period between 2054 and 2056) could potentially influence water levels in existing water supply wells south of the Bear River (Impact 11-3). Mitigation Measure R11-3 would reduce this potentially-significant project impact to a less-than-significant level. As discussed in Impact 11-3, the Bear River bisects the project site, serves as a discharge boundary between the north and south sides of the river, and intercepts and controls groundwater flow and levels. Cumulative projects north of the river, therefore, would not affect wells south of the river. The cumulative projects south of the Bear River are too far from the project site (at least 10 miles) to contribute to a potential lowering of water levels in the supply wells near the project site. The proposed project, therefore, would not contribute to any cumulative impacts related to this issue.

As discussed in Impact 11-4, evaporation of groundwater from the proposed 300-acre reclaimed lake north of the Bear River would be approximately 1,428 af/year. Groundwater level data are not available for the portion of the site north of the Bear River. It is not certain, therefore, whether the groundwater inflow would maintain the proposed lake elevation. A drop in lake levels below planned elevations could adversely affect the emergent marsh habitat proposed for the lake fringe, promote eutrophication,

and potentially promote production of methyl mercury. If cumulative projects north of the Bear River (e.g., Wilson Ranch) were to adversely affect the ability of groundwater to recharge the lake, the proposed and cumulative projects could result in a significant cumulative impact related to this issue.

The Patterson Sand and Gravel Mine Expansion Project could have potentially significant impacts related to increased sedimentation during asphalt batch plant and levee construction (Impact 11-5), potentially degrading the water quality of the Bear River/Feather River system. If cumulative projects within this river system were to increase sedimentation and degrade the water quality of these waterways, the proposed and cumulative projects could result in a significant cumulative impact related to this issue.

The proposed project could also increase concentrations of methyl mercury in the existing and proposed onsite ponds and lakes (Impact 11-6). As discussed above, if cumulative projects north of the Bear River (e.g., Wilson Ranch) were to adversely affect the ability of groundwater to recharge the reclaimed lake, the proposed and cumulative projects could result in a significant cumulative impact related to increased concentrations of methyl mercury in the lake. This cumulative impact is considered potentially significant.

Impact  
16-9

**Cumulative Adverse Effect on Potential Spawning Habitat of Special-Status Salmonids.** *The proposed project and cumulative projects could combine to have an adverse effect on habitat for special-status salmonids. If cumulative projects were to contribute to sedimentation along the Bear River/Feather River system, suitable habitat for these federally protected species could be affected. This cumulative impact is considered **potentially significant**.*

As discussed in Chapter 12, Biological Resources, of the EIR, the proposed mine expansion project would result in the loss of valley oak riparian woodland and other sensitive plant communities (Impact 12-1). In addition, the proposed mine expansion project could affect habitat for nesting raptors and valley elderberry longhorn beetle (Impacts 12-3 and 12-4, respectively). These significant or potentially significant project impacts would be mitigated on a project-specific basis to a less-than-significant level. Effects on several other special-status species (Impact 12-5) and effects of methyl mercury on special-status fish and wildlife species (Impact 12-6) are considered less than significant.

Increased sedimentation resulting from the proposed project could have a potentially significant indirect impact on special-status salmonids (Impact 12-2). The Bear River below Camp Far West Dam is considered suitable habitat for Central Valley spring-run chinook salmon, Central Valley fall-run chinook salmon, and Central Valley steelhead trout. Anadromous fish receive federal protection under ESA; protection of anadromous fish species is also addressed in the Placer and Yuba County general plans. Related projects upstream or downstream of the project site in the Bear River watershed (such as the Wilson Ranch, Heritage Oaks Estates, Jones Ranch, or Feather-Bear River levee setback projects) could contribute to increased sedimentation. Therefore, this impact is considered potentially significant.

Impact  
16-10

**Cumulative Hazards from Reclamation Features and Mosquitoes.** *Impacts on public health and safety would be site specific and could be mitigated on a project-by-project basis. Regardless of the presence of project reclamation hazards, mosquito concerns, or other safety*

issues, public health and safety issues would be addressed separately by each cumulative project. This cumulative impact is considered **less than significant**.

As described in Chapter 13, Public Health and Safety, development of the proposed mine expansion project would result in less-than-significant impacts relating to reclamation feature hazards (Impact 13-1) and mosquito hazards (Impact 13-2). Mine side slopes would be 2.25:1 (horizontal to vertical) or flatter to maintain long-term slope stability. Public exposure to reclamation features is expected to be limited because of existing site fencing and ongoing security measures associated with existing agricultural operations onsite and immediately to the north and west. Mosquito hazards (e.g., mine pits, reclaimed lakes, and reclaimed rice fields) would be controlled by local vector control districts. These impacts would not contribute to significant cumulative impacts in the region.

Potential health and safety impacts on other cumulative project sites would be mitigated on a project-specific basis. The creation of attractive nuisances such as open-water areas would be restricted to the specific project site and would therefore not be considered a cumulative effect. Disease vectors, particularly mosquitoes, are controlled on a site-specific basis by local vector control districts. Public health and safety issues would be addressed on a project-by-project basis (as determined by Placer County or Yuba County) regardless of the existence of the reclamation features associated with the proposed mine expansion project. Therefore, this cumulative impact is considered less than significant.

Impact  
16-11

**Cumulative Risk of Accidental Releases of Hazardous Materials Leading to Contamination of Groundwater and Surface Water.** *The proposed project and cumulative projects could combine to produce accidental releases of hazardous materials that could contaminate groundwater, leading to surface water contamination of the Bear River and the Feather River downstream. If spills of hazardous materials were to occur from cumulative projects along the Bear River, this could result in a significant cumulative impact on surface water quality. This impact is considered **potentially significant**.*

Construction of the asphalt batch plant would involve fueling and maintenance activities that could result in spillage of fuels, lubricants, solvents, or other hazardous materials and could result in adverse effects on soil and groundwater quality (Impact 14-1). Groundwater contamination from accidental releases could result in surface water contamination of the Bear River, which could flow offsite toward the Feather River and beyond. If spills of hazardous materials were to occur from cumulative projects along the Bear River (such as the Wilson Ranch, Heritage Oaks Estates, Jones Ranch, or Feather-Bear River levee setback projects), this could result in a significant cumulative impact on surface water quality. This impact is considered potentially significant.

Impact  
16-12

**Cumulative Disturbance of Subsurface Cultural Resources.** *The proposed project and cumulative projects could combine to affect previously unknown subsurface cultural resources. These resources could be found to be unique under CEQA. Therefore, this cumulative impact is considered **potentially significant**.*

No evidence of significant prehistoric or historic resources was found within the proposed mine expansion area (Chapter 15, Cultural Resources). The potential exists, however, for the disturbance of

previously unknown subsurface resources. This significant impact on subsurface cultural resources (Impact 15-2) is site specific and would be mitigated to a less-than-significant level.

Several of the cumulative projects (Teichert Aggregate Placer County facility, Lakeview Farms Hunt Club, Plumas Lake Specific Plan development, and the proposed Dana and Dana, Wilson Ranch, Heritage Oaks Estates, Jones Ranch, and Feather-Bear River levee setback projects) would or could involve construction activities that could result in disturbance of previously unknown surface or subsurface cultural resources. These resources could be found to be “unique” under §21083.2 of CEQA. Therefore, this impact is considered potentially significant.

### **16.3 CUMULATIVE MITIGATION MEASURES**

No mitigation measures are necessary for the following *less-than-significant* cumulative impacts.

- 16-2: Cumulative Long-Term Degradation of Views
- 16-3: Cumulative Increase in Long-Term Demand for Fire Protection and Emergency Response Services
- 16-4: Cumulative Changes in Roadway Levels of Service and Number of Truck Trips
- 16-10: Cumulative Hazards from Reclamation Features and Mosquitoes

Mitigation measures are provided below for *significant* or *potentially significant* cumulative impacts of the proposed project.

**Cumulative Mitigation Measure R16-1: Implement Mitigation Measures P4-1 through R4-1(c).** The applicant shall implement Mitigation Measures P4-1 through R4-1(c) to reduce the contribution of the proposed project to a significant cumulative impact related to Farmland conversion. These mitigation measures are described in Chapter 4, Land Use/Agriculture.

**Cumulative Mitigation Measure R16-5: Implement Mitigation Measures R8-1(a) through R8-11.** The applicant shall implement Mitigation Measures R8-1(a) through R8-11 to control vehicle emissions from off-road diesel equipment, reduce and monitor PM<sub>10</sub> concentrations, reduce concentrations of diesel exhaust particulate matter at nearby receptors, conduct ambient air monitoring for airborne concentrations of crystalline silica, and decrease detectable odors at nearby receptors. These mitigation measures are described in Chapter 8, Air Quality.

**Cumulative Mitigation Measure R16-6: Implement Mitigation Measures R9-1 through R9-5.** The applicant shall implement Mitigation Measures R9-1, R9-2, R9-4, and R9-5 to limit hours of construction, properly maintain construction and mining equipment, and implement measures to reduce onsite operational mining and processing noise levels. These mitigation measures are described in Chapter 9, Noise.

**Cumulative Mitigation Measure R16-7: Implement Mitigation Measures P10-1, R10-1, and R10-3.** In addition to Mitigation Measure P10-1 proposed by the applicant, the applicant shall



implement Mitigation Measures R10-1 and R10-3 to further protect the water quality of the Bear/Feather River system. These mitigation measures are described in Chapter 10, Geology, Minerals, Soils, and Paleontological Resources.

**Cumulative Mitigation Measure R16-8: Implement Mitigation Measures R11-4, R11-5, and R11-6.** The applicant shall implement Mitigation Measures R11-4, R11-5, and R11-6 to ensure design lake operating levels are maintained, sedimentation is controlled during asphalt batch plant and levee construction, and mercury levels are monitored. These mitigation measures are described in Chapter 11, Water Resources.

**Cumulative Mitigation Measure R16-9: Implement Mitigation Measure R12-2.** The applicant shall implement Mitigation Measure R12-2 to ensure that special-status salmonids are protected as required by NOAA Fisheries under ESA. This mitigation measure is described in Chapter 12, Biological Resources.

**Cumulative Mitigation Measure R16-11: Implement Mitigation Measure R14-1.** The applicant shall implement Mitigation Measure R14-1 to protect the water quality of the Bear/Feather River system. This mitigation measure is described in Chapter 14, Hazardous Materials.

**Cumulative Mitigation Measure R16-12: Implement Mitigation Measure R15-2.** The applicant shall implement Mitigation Measure R15-2 to ensure that subsurface cultural resources, including archaeological resources and human remains, are protected in accordance with CEQA and the California Health and Safety Code. This mitigation measure is described in Chapter 15, Cultural Resources.

## **16.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Following implementation of Cumulative Mitigation Measures R16-6, R16-7, R16-8, R16-9, R16-11, and R16-12, the associated cumulative impacts would be reduced to a *less-than-significant* level. The following cumulative impacts, however, cannot be feasibly mitigated to a less-than-significant level in their entirety, and would remain *significant and unavoidable*.

**Impact 16-1: Cumulative Conversion of State-Designated Farmland.** Implementation of Mitigation Measure P4-1 would compensate for the loss of agricultural land, and would render the project compliant with SMARA farmland reclamation standards (CCR §§3707–3708). However, neither this mitigation measure nor measures R4-1(a) and/or R4-1(b) would offset the loss of state-designated and federally designated Farmland to a less-than-significant level. There are no feasible mitigation measures available to reduce the contribution of the proposed project to this significant cumulative impact to state-designated and federally designated Farmland to a less than cumulatively considerable level. This impact, therefore, would remain *significant and unavoidable*.

**Impact 16-5: Cumulative Air Quality Impacts.** Implementation of Mitigation Measures R8-1(a) through R8-11 would reduce the impact of the proposed project with regard to silica emissions to a less-than-significant level, and the proposed project would not contribute at a considerable level to a cumulative impact in this area. Impacts relating to regional criteria pollutants and precursors,

concentrations of PM<sub>10</sub>, particulate deposition on nearby crops, and detectable odors would remain significant and unavoidable. Additionally, if impacts of cumulative projects (in particular, the Teichert Aggregate facility, the SR 65 Lincoln Bypass project, and development in the Plumas Lake Specific Plan area of Yuba County) relating to regional criteria pollutants are not mitigated on a site-specific basis to a less-than-significant level, then a *significant and unavoidable* cumulative impact would exist and the proposed mine expansion project would contribute to that impact.